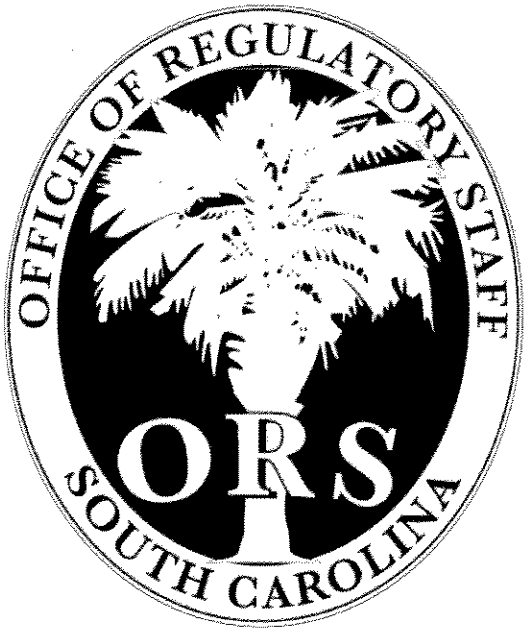
STUDY OF PROGRESS ENERGY CAROLINAS FOSSIL FUEL EXPENSES

DOCKET NO. 2005-1-E
(ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS)



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May 19, 2006

(REDACTED)

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Attachments:

STUDY OF PROGRESS ENERGY CAROLINAS FOSSIL FUEL EXPENSES

Background

Pursuant to an agreement among all parties regarding the *Annual Review of Base Rates for Fuel Costs of Carolina Power & Light Company dba/Progress Energy Carolinas, Inc. ("PEC")*, the South Carolina Office of Regulatory Staff ("ORS") has performed a study of PEC's fossil fuel purchasing methods. The study generally encompasses the review period of January 2005 through December 2006. This study examines PEC's fuel-related activities and evaluates the reasonableness of its practices. Specifically, this study and analysis include the following subject matters with respect to fossil fuel expenses: Fuel Procurement, Transportation of Fuel, Generation Planning, Fuel Mix, Purchased Power and Off-system Sales, Affiliate Transactions, Hedging Activities, Inventory Management, and ORS Site Visits.

PEC is a regulated public utility engaged in the generation, transmission, distribution, and sale of electricity to approximately 1.4 million retail and wholesale customers in North Carolina and South Carolina. Approximately 13% or 182,000 of PEC's retail and wholesale customers are located in South Carolina. PEC distributes and sells electricity in 56 counties in North Carolina and 14 counties in northeastern South Carolina. PEC's service territory covers approximately 34,000 square miles. PEC is a wholly owned subsidiary of Progress Energy, Inc. Progress Energy, Inc. maintains approximately 24,000 megawatts of electric generating capacity and serves approximately 2.9 million retail electric customers in portions of North Carolina, South Carolina and Florida. Progress Energy, Inc. revenues for the year ended December 31, 2005 were $10.1 billion, and year-end assets were $27.0 billion. Its principal executive offices are located in Raleigh, North Carolina.

PEC maintains the operation of a diverse mix of power generating units that include fossil, hydro, gas turbines (both simple and combined cycle), oil and nuclear. These units are geographically located throughout PEC's service territory in North Carolina and South Carolina (See Attachment A).

Fuel Procurement

Long-Term Contracts

PEC's primary source of energy generating fuel is coal. During the review period, PEC secured [redacted] for compliance and non-compliance coal (See Attachment B). The contracts vary in term ranging from 1 year to 35 years. The annual tons (for 2006) secured by PEC contracts range from 120,000 tons to 1,750,000 tons resulting in approximately 13 million tons of long-term contract coal to be delivered annually. The majority of PEC's long-term contracts are for periods typical of the coal industry ranging from 1 to 5 years; however, four long-term contracts are for terms uncommon to the industry. These contracts are for terms of 12 years [redacted] 30 years [redacted] and 35 years [redacted] These four contracts will expire in 2006 or 2007. Also, PEC must purchase a substantial quantity of low sulfur compliance coal to meet environmental regulatory requirements. Approximately 5.8 million annual tons or 46% of PEC's long-term contracts secure low sulfur compliance coal. PEC typically procures coal based on the following criteria:

- Compliance coal (≤ 1.2 lbs SO_2/MMBTU; 0.72% Sulfur), greater than 12,000 Btu originating on the CSX or NS Railroads and/or delivered by truck.
- Non-compliance coal (≤ 2.0 lbs SO_2/MMBTU; 1.22% Sulfur), greater than 12,200 Btu originating on the CSX or NS Railroads and/or delivered by truck.
- Non-compliance coal (≤ 3.2 lbs SO_2/MMBTU; 1.95% Sulfur), greater than 12,200 Btu originating on the CSX or NS Railroads and/or delivered by truck.
- Synthetic fuel comprised of coal feedstock from any of the above.

The coal contracts for [redacted] show a price increase during the term of the contracts. When comparing the initial producer price to the

current producer price, the increases per ton were [redacted] respectively. The [redacted] contract price increase reflects a negotiated fixed price increase within the contract. The [redacted] and [redacted] contract price increases reflect a "Right-to-Match" provision within each contract. This provision, also know as the First Right of Refusal, provides a supplier with an expiring contract the right to match the terms of a proposed contract by a competitive supplier. The [redacted] show the most significant price increases, and additively supply 500,000 annual tons or 4% of PEC's long-term contract purchases.

PEC's coal purchases originate primarily within the Central Appalachia Coal Region (Eastern Kentucky, Western Virginia, Eastern Tennessee, and West Virginia). PEC maintains [redacted] and the [redacted] companies. However, the vast majority of the coal purchased for PEC's fossil power plants is transported via the [redacted] system. Eighteen of the [redacted] exclusively utilize the [redacted] system. PEC maintains 3 long-term producer contracts that exclusively utilize the [redacted] system. PEC secured 3 long-term producer contracts that can utilize either the [redacted] system. Also, PEC maintains 1 off-shore contract that transports coal via barge.

The [redacted] had an average transportation cost of [redacted]ton in 2005. In contrast, the [redacted] had a noticeably less expensive average transportation cost of [redacted]/ton. A comparison reflects a considerable [redacted]% higher transportation cost for [redacted] which can be largely attributed to [redacted]. The [redacted] contract and the [redacted] contract reflect a delivered cost of [redacted]/ton. This price represents the most expensive coal purchases. PEC secured approximately 1.5 million annual tons through these 2 long-term contracts. Collectively, these 2 contracts represent a considerable 12% of PEC's long-term contract purchases. However, it should be noted that these contracts

secure compliance coal which has a more expensive market value because of its lower sulfur content.

ORS compared each long-term contract price to the corresponding actual spot market price at the time the contract was let (See Table 1). This approach allowed ORS to evaluate PEC's success in negotiating advantageous terms for its long-term coal contracts. To evaluate contracts with terms beyond 5 yrs, ORS used the 2005 EIA average weekly spot price of $63.21/ton (See [redacted]), [redacted] and [redacted] The comparison revealed that 4 (or [redacted]%) of the [redacted] reflect coal prices higher than the corresponding spot market price for coal at the time the contracts were let. These 4 contracts represent approximately 2.0 million annual tons of coal.

One of the 4 contracts above the corresponding spot market prices was for purchases of non-compliance coal. The [redacted] contract shows a price that is [redacted]% above the corresponding spot market price. This [redacted] contract secured approximately 350,000 annual tons of long-term contract coal. This contract also represents approximately 3% of PEC's long-term contract purchases.

The remaining 3 of the 4 contracts were for compliance coal transported on the [redacted]. Compliance coal originating in the [redacted] shipping districts also carries an industry premium of $[redacted] (ref: US Coal Review - Hill Daily Index; April 2006). When re-evaluating the compliance coal contracts recognizing a $2.00/ton [redacted], the [redacted] and the [redacted] remain above the corresponding spot price by [redacted]% and [redacted]%, respectively (See Table 2).

Table 1: Long-Term Contract Price v. Actual Spot Market Price

Producer	FMS Contract #	Date of Contract (Initial)	Term (yrs)	Initial Producer Price ($)	Tons (Annual) 2006	Btu Content (Btu/lb)	% Sulfur	[1]Spot Market Price	$ Difference	% Difference
[redacted]										

Table 2: Long-Term Contract Price v. Actual Spot Market Price [redacted]

Producer	FMS Contract #	Initial Producer Price ($/ton)	Tons (Annual) 2006	% Sulfur	Spot Market Price	[redacted] ($2/ton)	Revised Cost ($/ton)	$ Difference	% Difference
[redacted]									

The utilization of independent data is vital in supporting the study's validity, and the recognition and consideration of the data's limitations is critical to the overall evaluation. ORS recognizes that an overall basis for comparison utilizing delivered plant cost would be appropriate; however, Table 1 data is constrained by the type of readily available, reliable public information (EIA-DOE data source) which does not include transportation costs. Therefore, there are instances in this report where a delivered fuel cost is contrasted with a fuel cost with no transportation costs included. It should also be recognized that the EIA-DOE data is based on the spot market price for compliance coal from a region PEC may have a limited ability to access and PEC's requirements are not exclusively for compliance coal. In addition, Table 2 provides a further screening for compliance coal contracts by including a minimum [redacted]/ton adder for coal transported on the [redacted] system. The resulting comparison on Table 1 shows that the vast majority of PEC's contract prices were well below the spot market price. The additional screening by Table 2 with the minimum [redacted]/ton [redacted] confirmed the three compliance contracts that exceeded the initial screening were within a [redacted] to [redacted]% range without further assessment.

Short-Term Spot Contracts

ORS evaluated PEC's short-term contracts for 2005. PEC secured [redacted] spot contracts for compliance and non-compliance coal to supplement its existing long-term contracts, for inventory management and to take advantage of current market conditions in 2005 (See Attachment C). The contracts vary in term ranging from 1 month to 12 months. The quantity secured by the spot contracts range from 9,000 tons to 360,000 tons resulting in approximately [redacted] tons of spot coal delivered in 2005. Also, PEC purchased a substantial quantity of low sulfur compliance coal in 2005 to meet environmental regulatory requirements. Approximately [redacted] of PEC's short-term contracts secured low sulfur compliance coal. The physical properties of the spot coal meet the same standard

specifications as for the long-term contracts, described above. When surveying the market for future spot purchases, PEC should continue to include cost and reliability when considering the level and percentage mix of spot purchases.

As with its long-term contracts, PEC primarily transports its spot coal via the [redacted] from the Central Appalachia Coal Region. [redacted] of the [redacted] short-term contracts exclusively utilize the [redacted]. One of these contracts was for off-shore coal that was off-loaded at the Port of Charleston and transported to the Roxboro and/or Mayo power plants on the [redacted]. PEC entered into 4 short-term producer contracts during this review period that exclusively utilize the [redacted]. PEC executed 3 short-term producer contracts that can utilize either the [redacted]. Lastly, PEC entered into 4 short-term contracts during this review period that transport coal via ground transportation.

Similar to the long-term contracts, PEC's short-term contracts utilize the [redacted] which has an average transportation cost of [redacted]/ton and the [redacted] system which has an average transportation cost of $[redacted]/ton. The [redacted] compliance coal purchase is the most expensive purchase at a delivered cost of $[redacted]/ton (explained in more detail below). PEC secured [redacted] through this off-shore spot contract. This purchase represents a considerable [redacted] of PEC's short-term contract purchases.

ORS compared each spot contract price to the corresponding actual spot market price at the time the contract was let. This approach allowed ORS to evaluate PEC's success in negotiating advantageous terms for its short-term coal contracts. The comparison revealed that [redacted] (or [redacted]% or [redacted]) of the [redacted] PEC spot contracts reflect coal prices higher than the corresponding spot market price for coal at the time the contract was let. Table 3 below shows the results of the comparison.

[redacted] of the [redacted] above the corresponding spot market prices were for purchases of non-compliance coal. The [redacted] and [redacted] show prices above the corresponding spot market at [redacted]%, [redacted]%, and [redacted]%, respectively. The noticeable purchase was the [redacted] which was for a minor shipment of 15,000 tons.

[redacted] of the [redacted] were for compliance coal transported on the [redacted]. As mentioned above in the Long-Term Contracts Section, compliance coal originating in the [redacted] districts carries an industry premium which results in an additional $[redacted]. Re-evaluating the compliance coal contracts recognizing a $[redacted], all of the compliance coal contracts, except the [redacted] remain above the corresponding spot market price (See Table 4). The [redacted] is the most expensive of the spot contracts which secured [redacted] of compliance coal. It was an off-shore purchase necessary due to a tight coal market, supplier difficulties and delivery difficulties. During the review period off-shore purchases were typically more expensive than domestic coal purchases. The remaining 2 of the [redacted] spot contracts, the [redacted] and the [redacted] contracts, were for compliance coal that did not originate on the [redacted] system.

Lastly, it should be noted that during the review period, coal prices experienced unprecedented increases. Graph 1 below illustrates the increasing price for coal by geographic region over the 3 year period ending March 2006.

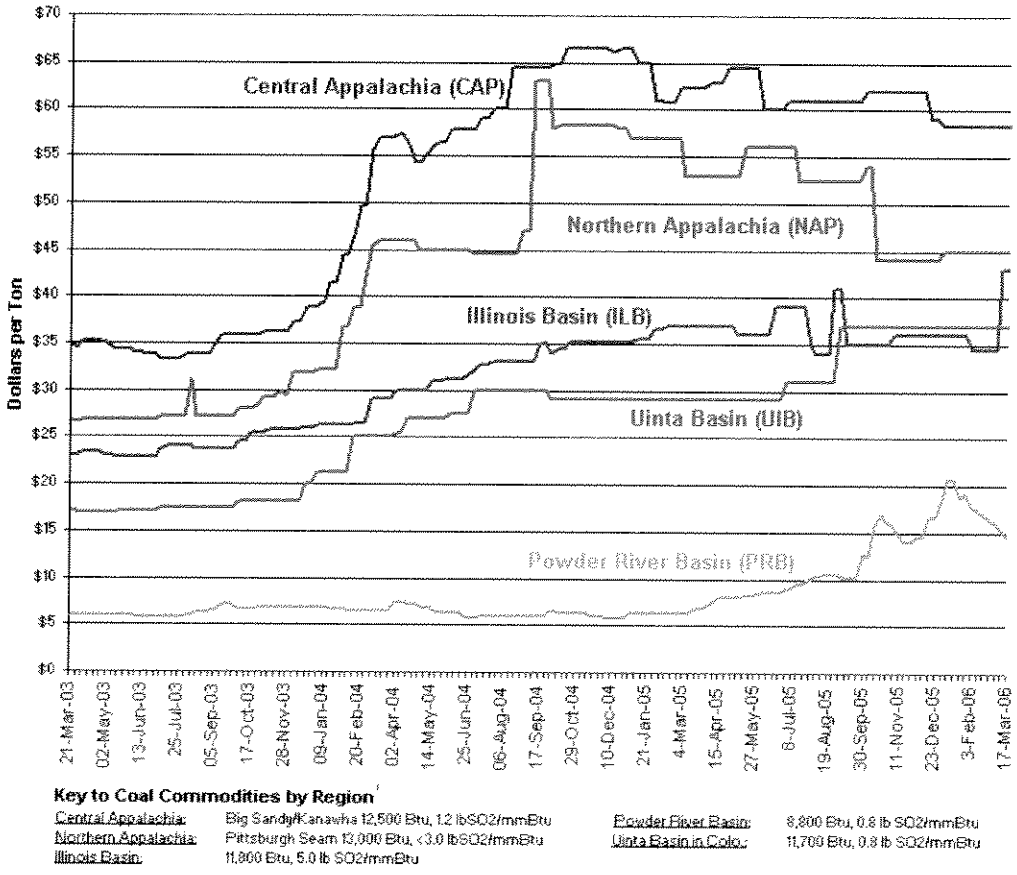
Table 3: Short -Term Spot Contract Price v. Actual Spot Market Price

Producer	FMS Contract #	Date of Contract (Initial)	Initial Producer Price ($)	Tons (2005)	Btu Content (Btu/lbs)	% Sulfur	[1]Spot Market Price	$ Difference	% Difference
[redacted]									

Table 4: Short -Term Contract Price v. Actual Spot Market Price [redacted]

Producer	FMS Contract #	Initial Producer Price ($)	Tons (2005)	% Sulfur	Spot Market Price	[redacted] ($2/ton)	Revised Cost ($/ton)	$ Difference	% Difference
[redacted]									

Graph 1: Coal Commodities by Region



Key to Coal Commodities by Region[1]

Central Appalachia:	Big Sandy/Kanawha 12,500 Btu, 1.2 lbSO2/mmBtu	Powder River Basin:	8,800 Btu, 0.8 lb SO2/mmBtu
Northern Appalachia:	Pittsburgh Seam 13,000 Btu, <3.0 lbSO2/mmBtu	Uinta Basin in Colo.:	11,700 Btu, 0.8 lb SO2/mmBtu
Illinois Basin:	11,800 Btu, 5.0 lb SO2/mmBtu		

Source: Energy Information Administration - US Department of Energy (3.17.06)

Coal Procurement Process

ORS reviewed PEC's Coal Procurement Procedure Document (MCP-FFDC-00002). This written policy is applicable to PEC's internal Procurement & Risk Management Section and its Fossil Fuel Procurement Team. The procedure addresses PEC's request for proposals (RFP) process and its phone solicitation process. These processes are presented in writing and supplemented with corresponding flow-chart illustrations. The policy also includes a formal hierarchical signature approval structure for coal purchases.

Based on inventory status and contract expiration dates, PEC periodically issues solicitations to secure long-term contracts and/or spot purchases to manage inventory levels. PEC evaluates the bids received in accordance with the above procedure. This evaluation is based on economic factors to include tonnage offered, coal price, freight price, delivered cost per MMBTU, prior experiences with supplier, coal specifications, qualities, and method of transportation. PEC also evaluates additional non-economic factors before awarding a contract. These factors include supplier historical performance, financial health of supplier, the percent of portfolio under contract with supplier, and previous quality issues.

Natural Gas Procurement Process

ORS reviewed PEC's Natural Gas Procurement Procedure Documents (MKT-RCOD-00043; MKT-RCOD-00044; MKT-RCOD-00056; MKT-RCOD-00057; MKT-RFDC-0050; MKT-RFDC-00059; MKT-RFDX-00045). PEC operates 3 major natural gas-fueled power plants, Richmond County Station (1247 MW), Wayne County Station (668 MW), and Darlington County Station (812 MW) which has 13 turbines of which 6 are natural gas fired. PEC primarily purchases its natural gas via access to the Gulf Coast natural gas production region and transports its natural gas predominantly through the TRANSCO interstate pipeline system.

PEC has established a formal procurement process for natural gas in an attempt to ensure an adequate and reliable supply for its major gas-fueled power plants. PEC continuously monitors anticipated fuel needs and secures fuel delivery accordingly. The monitoring process consists of four opportunities to nominate natural gas during a 24-hour purchase window. Natural gas is subsequently purchased in accordance with PEC's internal procurement approval procedures.

Regarding the purchase of natural gas for PEC's natural gas fired power plants, ORS audited a sample of 169 daily purchases (See Attachment D). The audit evaluated whether the daily prices paid for PEC's natural gas purchases fell within the range of natural gas prices at the receipt point as reported in Gas Daily for the corresponding purchase dates. The audit found that 12 (or 7%) of 169 purchases were above the Gas Daily price range. The majority of these purchases were intra-day transactions responding to unforeseen immediate system needs. Intra-day purchases are much more vulnerable to market activity and do not correlate specifically to a Gas Daily index range. Also, ORS found 4 occurrences where PEC purchased natural gas below the corresponding index price.

In summary, during the review period, the entire industry as well as PEC experienced significant price increases due to the upward market trend for coal and natural gas. Also, PEC and the industry in general also experienced supply and delivery difficulties for coal. Notwithstanding the adverse market conditions and circumstances described above, PEC should continue to work diligently to ensure its short-term purchases for coal and natural gas are at or below the corresponding market value. Also, PEC should only consider purchasing coal from more expensive domestic or off-shore markets as a last alternative to acquire fuel or only when it has a competitive delivered price with domestic coal.

Transportation of Fuel

As mentioned above in the Fuel Procurement Section, PEC primarily utilizes the [redacted] system to transport coal to its power generating facilities. During the review period, PEC transported approximately 83% (or [redacted]) of its long-term coal contract purchases via the [redacted] system. PEC entered into 3 transportation contracts with the [redacted] and one contract with the [redacted] (See Table 5). All transportation railroad contracts contain provisions to allow PEC to use its private rail cars.

Table 5: Railroad Transportation Contracts

Transporter	Term	Description
[redacted]	[redacted]	To Weatherspoon, Robinson, Cape Fear, Lee and Sutton Plants
[redacted]	[redacted]	To Asheville, Cape Fear, and Lee Plants
[redacted]	[redacted]	To Roxboro and Mayo Plants
[redacted]	[redacted]	Refund for Rapid Discharge Cars

PEC's [redacted] contains provisions for [redacted] deliveries as well as provides [redacted] tons. The contract contains base rates subject to a quarterly adjustment based on the forecasted [redacted] ([redacted]) as determined by [redacted].

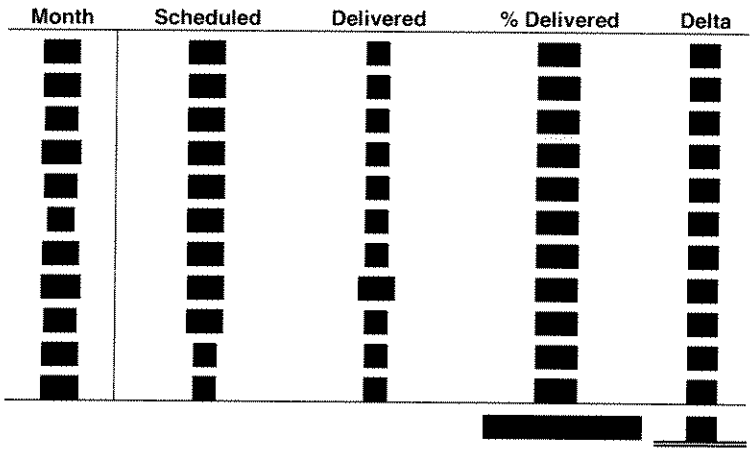
The primary [redacted] ([redacted]) also contain base rates subject to a quarterly adjustment based on the forecasted [redacted] as determined by [redacted]. However, unique to the [redacted] is [redacted]. [redacted] is based [redacted]. As mentioned in the Fuel Procurement Section above, the [redacted] had an average transportation cost of [redacted]/ton in 2005. In contrast, the [redacted]

[redacted] system had a less expensive average transportation cost of $[redacted]/ton. A comparison reflects a [redacted]% higher transportation cost for [redacted] which can be [redacted]. PEC also maintains a contract with [redacted] that provides [redacted] on a $/ton [redacted] on the [redacted] and shipped to the [redacted] plants in PEC's private rapid discharge cars. Again, this contract also contains [redacted] based on the forecasted [redacted] as determined [redacted]. It is an open-ended contract valid through the life of the rapid discharge cars or by mutual consent of both parties to cancel the contract.

During the review period, PEC also incurred costs associated with barge and truck transportation for coal purchases. The average barge transportation cost of [redacted]/ton reflects the transportation of the coal from the off-loading Port of Wilmington to its final destination. Trucking costs are reflected in the delivered price of coal.

ORS reviewed PEC's ability to consistently receive coal in accordance with its transportation contracts with a focus on [redacted] delivery performance. ORS found that PEC did not receive a number of [redacted] shipments as scheduled during 2005. However, PEC indicates that the lack of shipments was not entirely due to [redacted] delivery difficulties. PEC explained that it also experienced considerable supplier difficulties and non-deliveries due to planned outages of PEC's coal handling facilities at the Roxboro and Mayo plants. These outages were necessary to upgrade the unloading facilities to accept rapid discharge railcars. In particular, the May 2005 delta can be chiefly attributed to the outages at the Roxboro and Mayo plants. Table 6, below, reflects an average delivery success rate of [redacted]%. As of December 2005, PEC had yet to receive [redacted] scheduled shipments/trains or approximately [redacted] tons of coal. This table also provides a month by month summary of PEC's coal contract delivery performance for the shipments utilizing the [redacted] system.

Table 6: 2005 NS Coal Contract Performance Summary



A review of transportation costs during the period of April 2004 through June 2005 revealed that PEC's transportation costs more closely coincided with that of Duke Power Company when compared to the other major investor-owned utilities operating in South Carolina. Table 7 below shows PEC had an average freight cost of $[redacted]/ton. Currently, Duke Power Company has a 1.3% higher transportation cost, and South Carolina Electric & Gas Company has a 21.4% lower average transportation cost. PEC's service territory is largely captured by the [redacted].

Table 7: Progress Energy Carolinas, Inc.

Month	Invoice Cost per Ton	Freight Cost per Ton	Total Cost per Ton	Cost per MMBTU	Btu of Coal
	$	$	$	$	Btu/lb
Apr-04	36.42	14.61	51.03	2.0560	12,410
May-04	35.64	15.04	50.68	2.0446	12,394
Jun-04	38.54	14.54	53.08	2.1495	12,347
Jul-04	44.20	13.78	57.98	2.3376	12,402
Aug-04	43.73	13.92	57.65	2.3394	12,322
Sep-04	41.06	14.03	55.09	2.2249	12,380
Oct-04	38.67	15.17	53.84	2.1706	12,402
Nov-04	41.14	14.84	55.98	2.2514	12,432
Dec-04	46.81	18.15	64.96	2.6387	12,309
Jan-05	44.38	18.58	62.96	2.5318	12,434
Feb-05	44.43	18.30	62.73	2.5100	12,496
Mar-05	47.05	17.69	64.74	2.5980	12,460
Apr-05	48.03	19.16	67.19	2.6927	12,476
May-05	47.41	19.65	67.06	2.7308	12,278
Jun-05	49.55	21.50	71.05	2.8719	12,370
Average	**43.14**	[redacted]	**59.73**	**2.4099**	**12,394**

Table 8: South Carolina Electric & Gas Company

Month	Invoice cost per Ton	Freight Cost per Ton	Total Cost per Ton	Cost per MMBTU	Btu of Coal
	$	$	$	$	Btu/lb
Apr-04	37.53	13.40	50.93	2.0176	12,621
May-04	37.52	12.07	49.59	1.9566	12,672
Jun-04	39.53	12.92	52.45	2.0821	12,595
Jul-04	35.93	12.61	48.54	1.9187	12,649
Aug-04	41.14	11.26	52.40	2.0844	12,570
Sep-04	38.07	14.20	52.27	2.0901	12,504
Oct-04	37.82	13.17	50.99	2.0357	12,524
Nov-04	43.54	11.34	54.88	2.1668	12,664
Dec-04	37.47	12.94	50.41	2.0026	12,586
Jan-05	49.94	10.74	60.68	2.3853	12,720
Feb-05	43.17	15.49	58.66	2.3205	12,640
Mar-05	48.62	12.41	61.03	2.4081	12,672
Apr-05	47.06	13.81	60.87	2.4112	12,622
May-05	44.95	13.85	58.80	2.3278	12,630
Jun-05	46.56	15.36	61.92	2.4429	12,673
Average	**41.92**	**13.04**	**54.96**	**2.1767**	**12,623**

Table 9: Duke Power Company

Month	Invoice Cost per Ton	Freight Cost per Ton	Total Cost per Ton	Cost per MMBTU	Btu of Coal
	$	$	$	$	Btu/lb
Apr-04	32.18	15.41	47.59	1.9331	12,309
May-04	32.46	15.55	48.01	1.9591	12,253
Jun-04	32.05	16.54	48.59	1.9922	12,195
Jul-04	33.40	16.80	50.20	2.0517	12,234
Aug-04	34.25	16.52	50.77	2.0639	12,300
Sep-04	33.74	16.76	50.50	2.0631	12,239
Oct-04	32.17	16.54	48.71	1.9980	12,190
Nov-04	35.08	14.56	49.64	2.0264	12,248
Dec-04	33.79	17.42	51.21	2.1058	12,159
Jan-05	35.89	16.92	52.81	2.1615	12,216
Feb-05	37.66	16.29	53.95	2.1993	12,265
Mar-05	37.21	17.98	55.19	2.2537	12,244
Apr-05	37.29	18.69	55.98	2.2454	12,466
May-05	37.80	17.63	55.43	2.2832	12,138
Jun-05	40.33	18.62	58.95	2.3457	12,566
Average	**35.02**	**16.82**	**51.84**	**2.1121**	**12,268**

It is important to compare the relative average cost per ton of delivered coal by utility. They are $59.73/ton, $54.96/ton, $51.84/ton, and for PEC, South Carolina Electric & Gas Company, and Duke Power, respectively (See Tables 7, 8, and 9, above). PEC's overall average invoice cost, delivered cost, and cost per MMBTU are higher than the other two utilities. Also, Duke Power purchased coal but at a much lower invoice cost. However, these findings can be largely attributed to PEC's need to purchase expensive low sulfur compliance coal to meet environmental requirements as well as the market conditions at the time of expiring contracts.

To compare the major investor owned utilities, ORS performed a historical review of coal costs by reviewing producer cost, freight cost, and delivered cost. Graph 2 of Attachment E shows a close correlation between the major utilities with regard to producer cost. This graph demonstrates that there has been a similar market for coal available to each utility over the past several years. That is, no utility appears to have a relative advantage on producer cost for coal. Graph 3 of Attachment F shows Duke Power and PEC have very similar historical freight costs. Graph 3 also shows that Duke Power and PEC experienced a significant increase in freight cost

in the first quarter of 2002 which is attributable to expiring contracts and contentious contract re-negotiations with [redacted]. Consequently, since 2002, South Carolina Electric & Gas Company has had an overall advantage in freight costs.

Graph 4 of Attachment G shows a close correlation of the major utilities with regard to the delivered cost of coal. Graph 5 of Attachment H shows the relative comparison of the Btu content of coal purchased by each major utility. As mentioned above, South Carolina Electric & Gas Company has historically purchased coal with a higher Btu content.

In summary, PEC has limited flexibility to diversify its transportation of coal to its plant stations. It is almost exclusively captured by the [redacted]. Consequently, PEC maintains a higher transportation cost than available on the [redacted] company. Due to the large number of tardy or non-deliveries from [redacted] and supplier difficulties, PEC should evaluate and explore all available and applicable legal remedies against [redacted] for failure to perform and determine the reasonableness of pursuing such remedies. In addition, when contract renewals occur, PEC should attempt to have its contracts [redacted] structured to encourage more timely supply and delivery and should incorporate into its contracts appropriate remedies when the contract terms are not met. Lastly, PEC should also evaluate any and all cost effective alternatives to ensure adequate supply, inventory, and delivery.

Generation Planning

ORS reviewed PEC's June 2005 Integrated Resource Plan (IRP). It provides a thorough evaluation of PEC's future generation needs through 2020. PEC's 2005 summer peak and winter peak loads are 11,780 MW and 10,587 MW, respectively. PEC forecasts a 26% increase

in the summer peak load and 24% increase in the winter peak load over the 15 year period. These increases correspond to total energy sales of 80,810 GWH in 2020.

The IRP process includes performing a load forecast, reliability analysis, economic analysis, and strategic review. PEC's load forecast incorporates economic conditions, weather, and population growth. The reliability analysis identifies the quantity of resources that must be available to provide adequate supply and reserves in the event of unforeseen circumstances such as generator outages, transmission unavailability, load uncertainty, etc. The economic analysis evaluates new resources to meet system needs. It considers new capital expenses, fuel prices, inflation, etc. The final component of the process is the strategic review which evaluates how the resource plan addresses non-quantitative events, such as potential environmental regulations, fuel price volatility, changes in regulatory structure, etc.

Currently, PEC's supply-side management program capacity is distributed through a diverse mix of generating units. PEC IRP shows its capacity mix for 2005 to be 37% coal, 25% nuclear, 25% natural gas, 11% purchased power, and 2% hydro. Correspondingly, the energy mix is projected to be 47% coal, 43% nuclear, 3% natural gas, 6% purchased power, and 1% hydro. The supply-side management program incorporates a 12%-15% reserve margin based on the 1 day in 10 years Loss of Load Probability (LOLP) criteria. PEC's IRP shows Wayne County combustion turbine facility providing an additional 155 MW in 2008. The IRP also shows a need for additional capacity of 304 MW by 2009.

PEC's IRP is reasonable and satisfactorily forecasts future system needs. PEC's IRP should additionally evaluate and categorize the type of generation (i.e., baseload, intermediate, or peaking) necessary to satisfy PEC's future capacity needs at the least possible costs to consumers.

Fuel Mix

Table 10, below, demonstrates the effect on a utility's overall fuel expense due to generation mix from the rate base plants and from purchased power of each utility. Table 10 utilizes the percentage generation by fuel and supply source for both South Carolina Electric & Gas Company and Duke Power Company for the twelve months ended June 30, 2005, and for PEC for the year ended February 2006, along with a predetermined cost per kilowatt-hour for each type of fuel source and purchased power regardless of company plant affiliation. The fuel categories and associated costs used are Nuclear (0.5 cents/kwh), Coal (2.75 cents/kwh), Natural Gas/Oil (10.0 cents/kwh), Hydro (0.0 cents/kwh), and Purchased Power (3.6 cents/kwh). The predetermined costs are approximations for these fuel cost categories utilizing recent costs, representative of these three utilities. The total or overall cost for each utility is weighted for each fuel source and purchased power expense by multiplying each category cost by the percentage of generation produced or provided from that source. The individual weighted costs are then combined to show the resulting overall average fuel expense that would be expected for a company with that corresponding generation mix. Hydro generation is included at zero fuel cost to account for not only run-of-river type production with zero actual fuel costs, but also to weight the overall generation from pumped storage facilities where the pump-up costs are reflected in other type generation fuel costs.

The intent of Table 10 is to show how rate based generating facilities along with purchased power impact fuel costs. The companies' rate based plants have gone through certification processes as well as prudency reviews, and each utility's facilities have been formally determined to be appropriate for each respective system.

Table 10: Projected Fuel Cost Based on Generation Mix by Fuel Type and Purchased Power

	SCE&G	Wtd (¢/kwh)	DUKE	Wtd (¢/kwh)	PEC	Wtd (¢/kwh)
Nuclear (0.5 ¢/kwh)	19.0%	0.10	47.0%	0.24	39.5%	0.20
Coal (2.75 ¢/kwh)	68.0%	1.87	50.9%	1.40	48.3%	1.33
Natural Gas/Oil (10.0 ¢/kwh)	6.3%	0.63	0.0%	0.00	3.6%	0.36
Hydro (0.0 ¢/kwh)	4.7%	0.00	1.6%	0.00	1.2%	0.00
Purchased Power (3.6 ¢/kwh)	2.0%	0.07	0.5%	0.02	7.4%	0.26
Total (%)	**100.0%**		**100.0%**		**100.0%**	
Total Weighted (¢/kwh)		**2.67**		**1.66**		**2.15**

Setting identical predetermined costs for all three utilities equates to the assumption that each utility's fuel purchase costs are the same. The resulting diverse total costs for the three utilities demonstrates the significant effect that kilowatt-hour generation and supply mix has on a utility's bottom line fuel expenses. The difference between the lowest (1.66 cents/kwh for Duke) and highest (2.67 cents/kwh for SCE&G) total fuel costs is approximately sixty (60%) percent, although the cost for the respective fuels is the same for each company.

Even with the assumption for all three utilities that all plant operations, purchased power and fuel costs are reasonable, Table 10 demonstrates that there are logical and legitimate reasons and circumstances for one utility's fuel costs exceeding those of another based on generation and supply mix diversity. Table 10 can be a useful tool in analyzing and explaining the varying fuel expenses among utilities in a more simplistic manner considering the complexity of the fuel procurement process and the operations of diverse generation facilities and systems.

Purchased Power and Off-system Sales

PEC has entered into long-term contracts for purchased power with 2 electric suppliers. They are the Calpine Broad River natural gas fired and AEP Rockport coal fired facilities. Collectively, these contracts contribute 11% of its capacity and 6% of its generation to PEC's fuel mix. PEC maintains a comprehensive computerized tracking system to ensure it assigns proper economic order to its generation, purchased power and off-system sales. The tracking system produces a summary detailing hour-by-hour purchases for each megawatt-hour of power on the system. Using the dispatch data sheets for generation, purchased power and off-system sales, an "after the fact" analysis is performed daily to identify the least cost method for power production. An avoided cost comparison of cost margins for self-generation and purchased power is also performed. For a power sale from PEC generation, the fuel costs associated with the sale are booked as a credit to the ratepayer and reduce the balance of the deferred fuel clause account. For a power purchase to support retail load, the full cost of the purchase (excluding transmission) flows directly to the deferred fuel clause account. PEC is adhering to its internal practices to ensure the least cost energy is dedicated to the retail native load. This approach of cost allocation directly benefits the retail rate payers.

Affiliate Transactions

PEC does not maintain standing contracts with any of its affiliate companies. However, PEC may periodically engage in opportunity transactions with an affiliate which take advantage of synergies inherent to the corporate structure of its parent company Progress Energy, Inc. PEC reports that affiliate transactions are at or below the market price.

Hedging Activities

PEC currently does not employ any financial hedging activities for coal purchases. PEC utilizes staggered contract expiration dates to provide insulation from market volatility while ensuring a continuous supply of coal. However, PEC should also monitor and evaluate possible cost effective financial hedging opportunities to further mitigate market volatility.

PEC's hedging strategy of natural gas targets the four high burn months of January, June, July, and August. In August 2005, PEC formally began natural gas hedging activities targeting these high burn months for 2006. ORS reviewed PEC's internal procedures for natural gas hedging activities. PEC's hedging process is common within the industry and may help to minimize PEC's risk while providing adequate control when engaged in natural gas markets.

Inventory Management

ORS reviewed PEC's inventory control process (See Attachment I). PEC's average monthly inventory for 2005 was [redacted] tons. PEC forecasts an average monthly inventory for 2006 of [redacted] tons for its system. PEC purchases coal to sustain its inventory on a "target" plant basis. This approach is necessary due to power plants on PEC's system that requires low sulfur compliance coal to satisfy regulatory environmental constraints. PEC utilizes the "Coal Inventory Risk Evaluator" computer model to establish average annual inventory targets for each plant. Inventory levels are monitored and managed based on the modeling results. The inventory targets are based on [redacted]. PEC's inventory target range by plant is [redacted]. Smaller plants maintain a wider inventory target range due to the unpredictable need for the plant in response to variable shifts in system load. Larger plants have a much more consistent utilization, and therefore, have a more discrete inventory target range.

Table 11 below presents the current inventory targets at [redacted] and correlates those targets to actual inventory as of December 31, 2005. It also provides a summary of PEC's average monthly inventory for 2005. A review of Table 11 shows that PEC consistently fell short of its inventory targets in 2005. PEC should continue to work toward rebuilding depleted inventories realized in 2005 and achieving its target in 2006.

Table 11: PEC Inventory Target Summary

Plant	Target	Ending Inventory 12/31/2005		Average Monthly Inventory 2005	
[redacted]					

ORS Site Visits

ORS met with PEC representatives to discuss PEC's fuel procurement practices. These meetings occurred at the PEC headquarters in Raleigh, N.C. ORS visited the Darlington County Station and the H.B. Robinson Power Generation Facility in Darlington, S.C. to physically observe the electricity generation process at fossil fuel and natural gas power plants. Also, ORS visited PEC's purchase power operations and PEC's unit dispatching operations. In July 2005, ORS also toured the mining operations and coal loading system (tipple) in Pikeville and Hazard, Kentucky. During the visit, ORS toured TECO's surface and underground mining activities as well as its coal laboratories dedicated to sampling and determining coal qualities.

Recommendations

ORS offers the following suggestions and/or recommendations to enhance PEC's fuel management activities:

I. PEC should continue to include cost and reliability when considering the level and percentage mix of spot purchases.

II. PEC should only consider purchasing coal from more expensive domestic or off-shore markets as a last alternative in acquiring fuel.

III. PEC should evaluate and explore all available and applicable legal remedies against CSX, NS, and it's suppliers for failure to perform and determine the reasonableness of pursuing such remedies.

IV. PEC should evaluate possible advantageous hedging opportunities to mitigate market volatility for coal.

V. PEC should work toward rebuilding depleted inventories realized in 2005 and achieving its target in 2006.

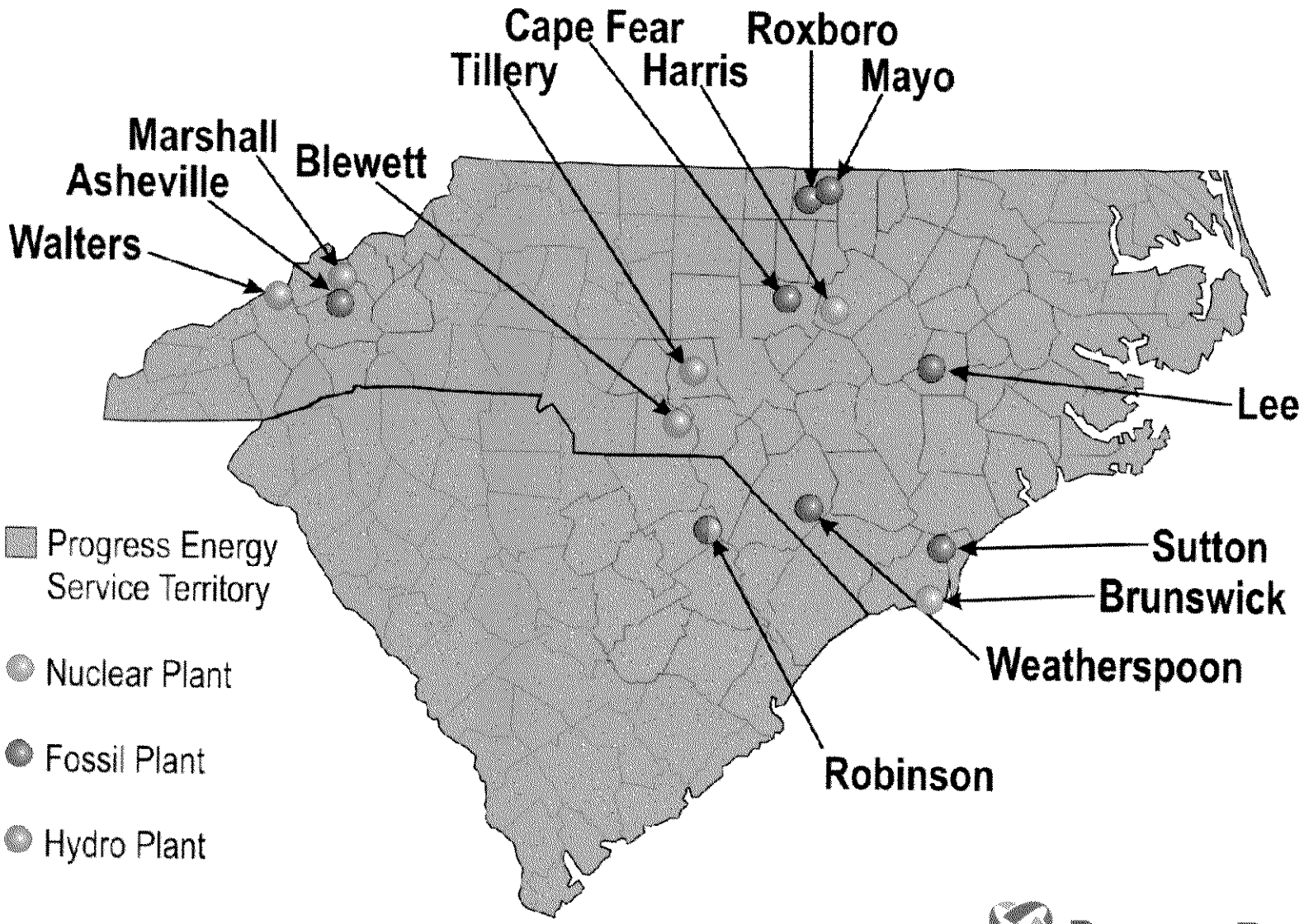
VI. PEC should evaluate and categorize the type of generation (i.e., baseload, intermediate, or peaking) necessary to satisfy its future capacity needs.

VII. In addition to reports currently filed with ORS in accordance with state statute and/or Commission Order, ORS requests the following information:

- Annual updated fuel forecast
- Monthly Over/Under Cumulative Recovery Report
- Notice of significant cumulative recovery trends
- Notice of significant fuel cost trends
- Monthly FERC Form 423
- Any industry solicitation for coal

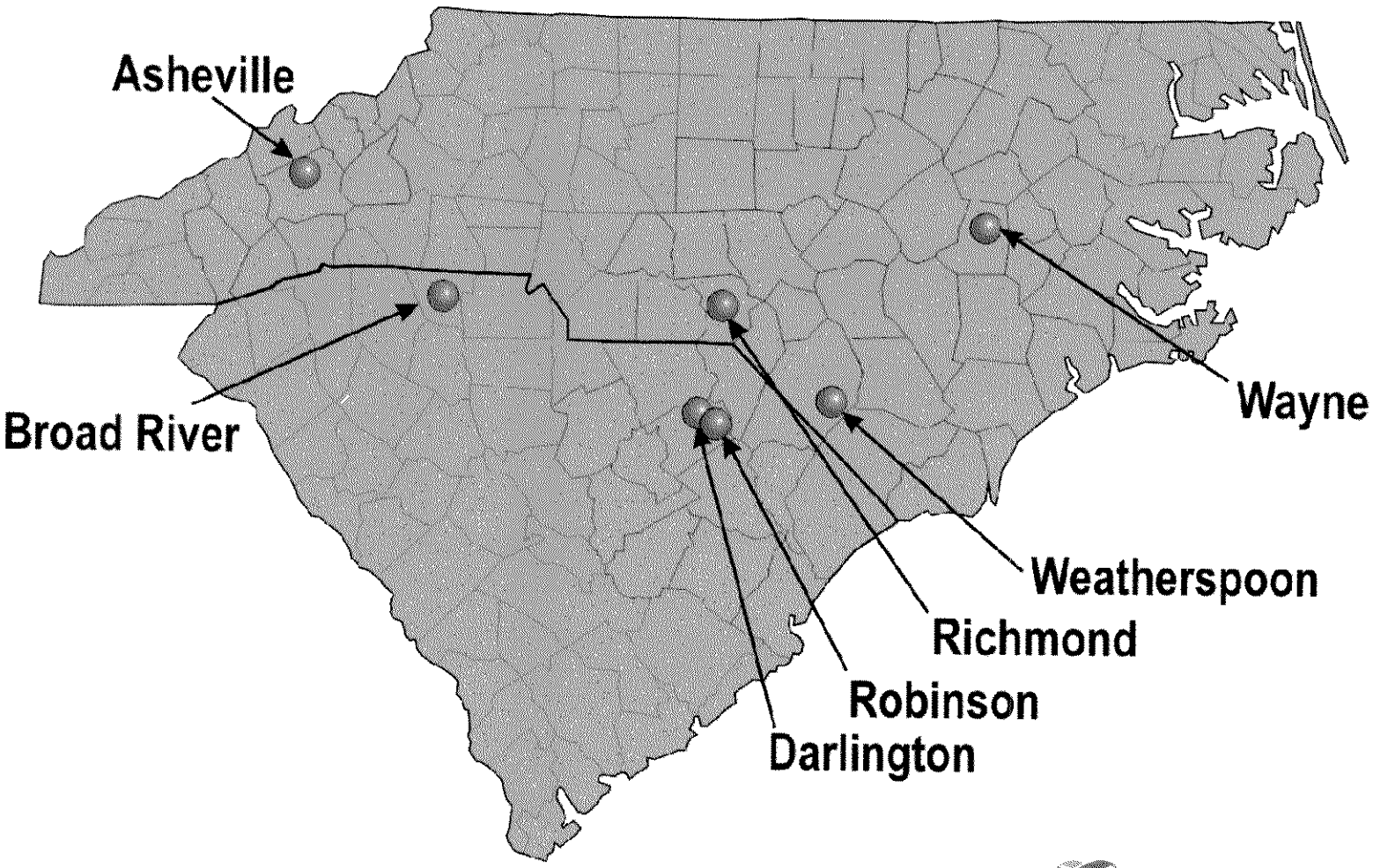
ATTACHMENT A

Nuclear, Hydro, and Fossil



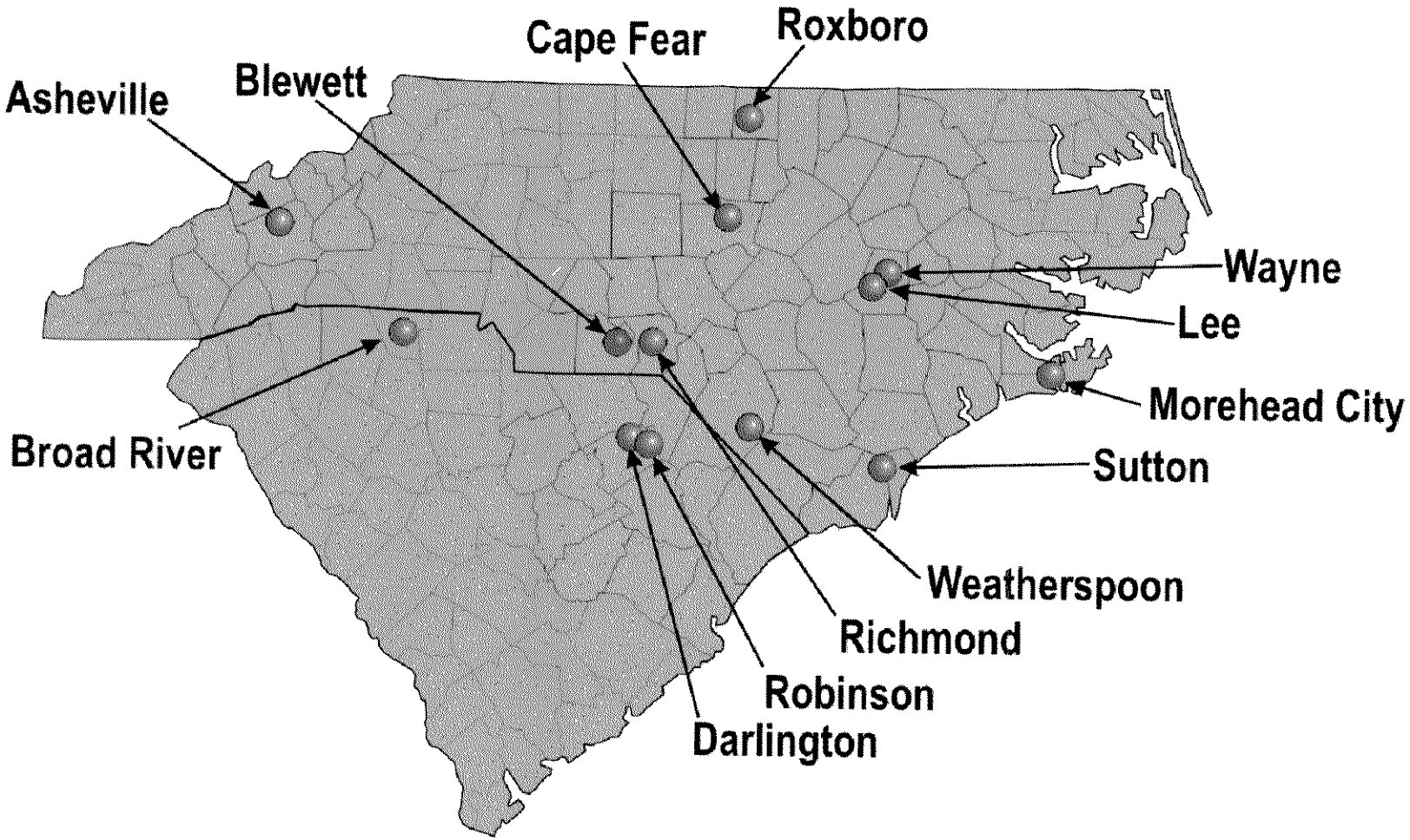
Progress Energy

Gas Fired Generation



Progress Energy

Oil Fired Generation



Progress Energy

ATTACHMENT B

PROGRESS ENERGY CAROLINAS FUEL STUDY
PRODUCER LONG-TERM CONTRACTS (GREATER THAN ONE YEAR)

REDACTED

ATTACHMENT C

PROGRESS ENERGY CAROLINAS FUEL STUDY
PRODUCER SPOT CONTRACTS (1 YEAR OR LESS) - 2005

REDACTED

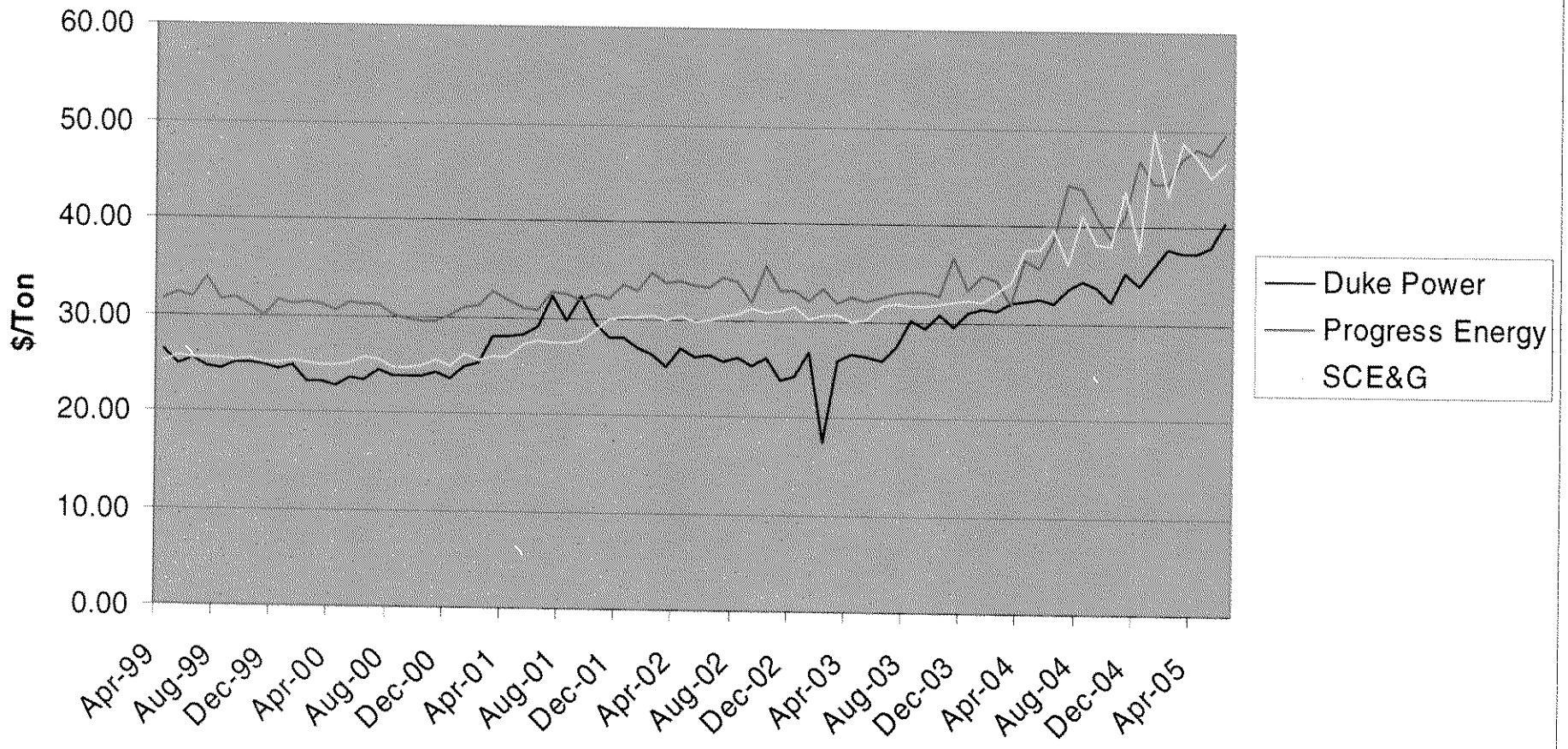
ATTACHMENT D

Progress Energy Carolinas Fuel Study
Natural Gas Purchase Review

REDACTED

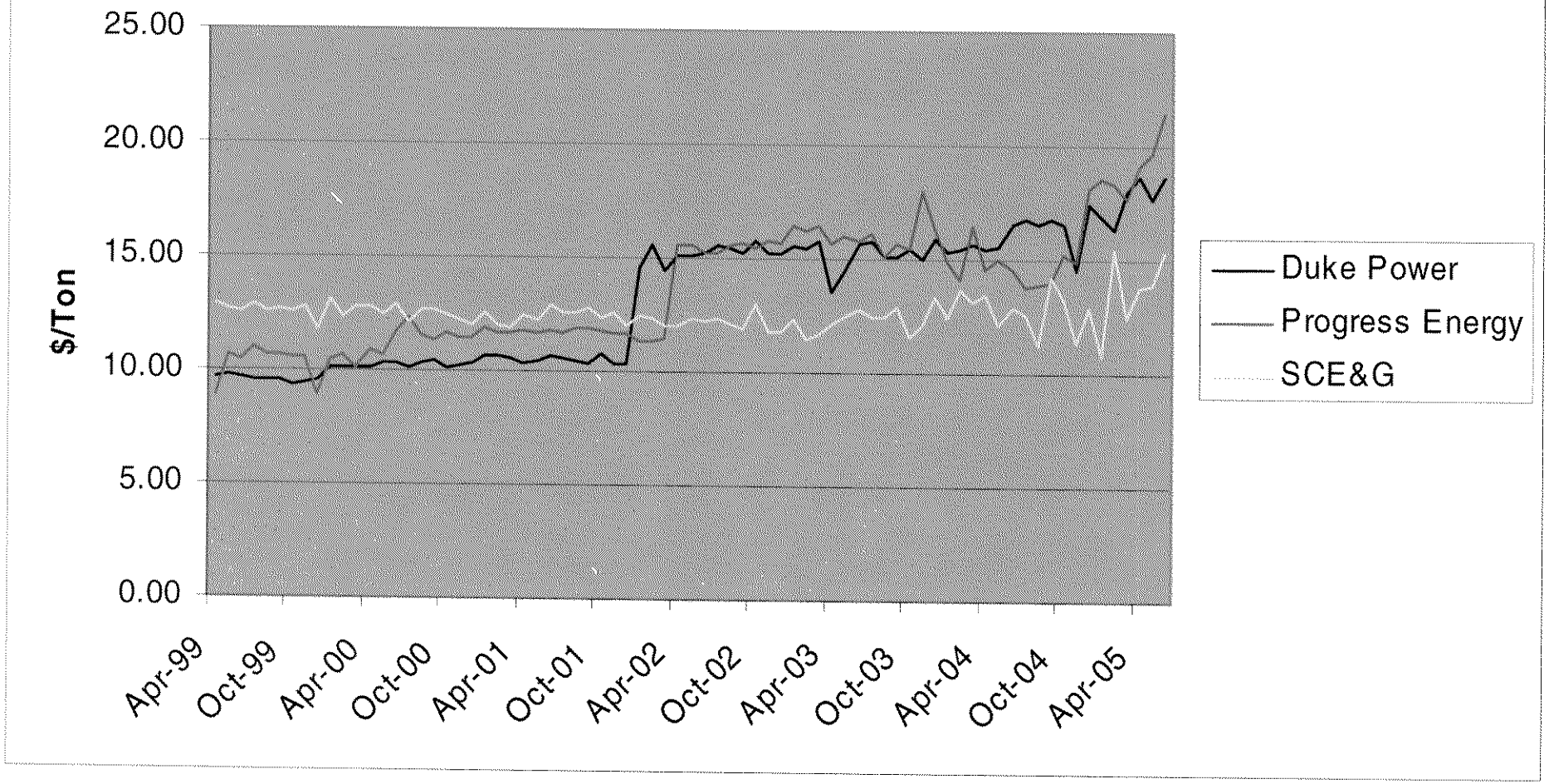
ATTACHMENT E

Graph 2 - Producer Cost (4/99 - 6/05)



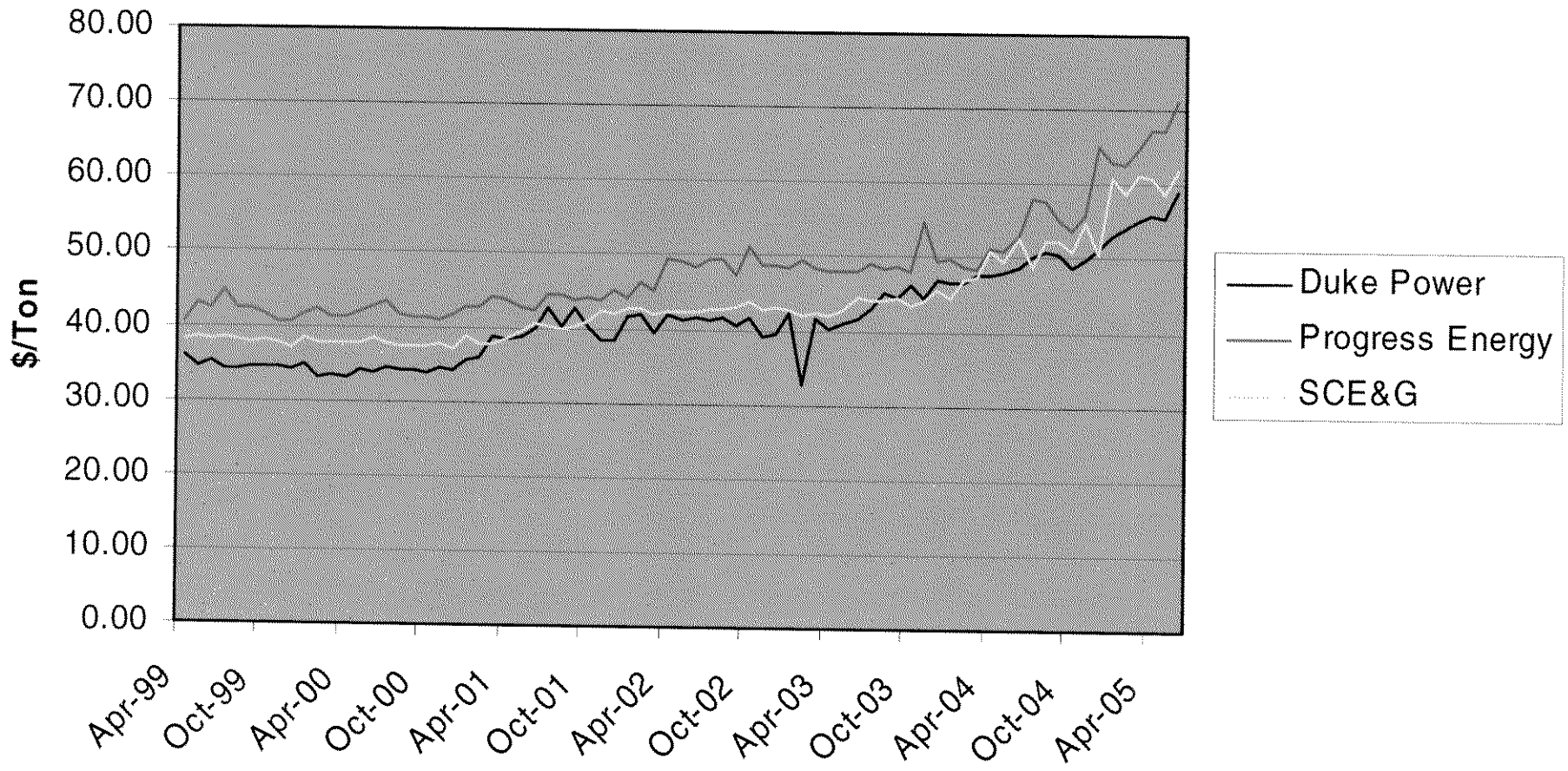
ATTACHMENT F

Graph 3 - Freight Cost (4/99 - 6/05)



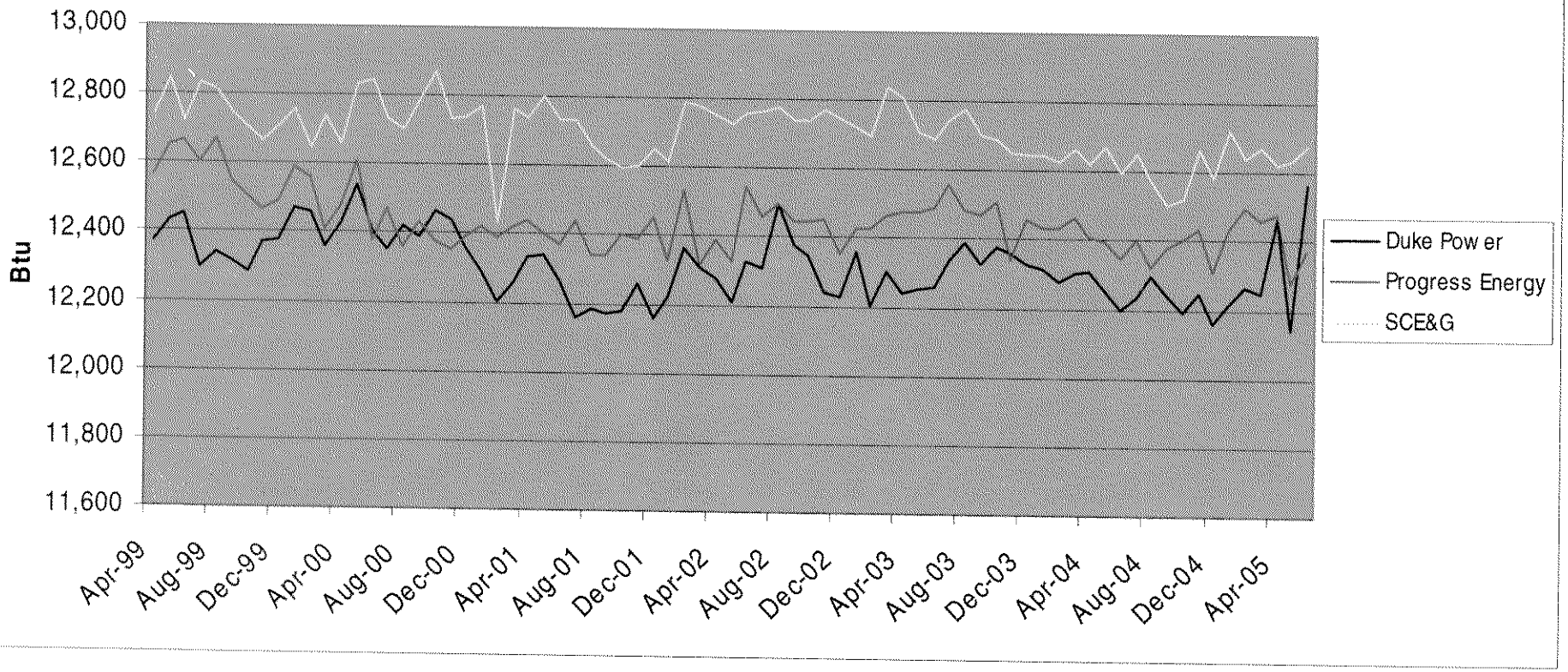
ATTACHMENT G

Graph 4 - Delivered Cost (4/99 - 6/05)



ATTACHMENT H

Graph 5 - Btu of Delivered Coal



ATTACHMENT I

PROGRESS ENERGY CAROLINAS FUEL STUDY
INVENTORY TRACKING (TONS)
REVIEW PERIOD: (1/1/2005 – 12/31/2005)

REDACTED

PROGRESS ENERGY CAROLINAS FUEL STUDY
INVENTORY TRACKING (TONS)
REVIEW PERIOD: (1/1/2006 – 12/31/2006)

REDACTED